

Question	Answer
<p>What would be the impact of increasing the largest loss of infeed above 1.8GW on the results?</p>	<p>From SQSS perspective, the largest single loss is defined as 1.8 GW and will not be increased above 1.8GW. From FRCR perspective, the analysis will look into two years in advance. If the largest loss will grow to 1.8 GW within the FRCR timeframe, it will be formally evaluated before it becomes prevalent. The likely outcome would be that this event will be secured at all times.</p>
<p>Does classification of 'all bmu only' events include interconnectors?</p>	<p>Yes, interconnector is included in the classification of BMU-only event in FRCR work. To be more specific, BMU-only events include all single credible infeed loss including its consequential RoCoF losses, and interconnectors are one of the main drivers for the current Dynamic Containment requirement.</p>
<p>The incremental benefit of moving from 110 to 102 looks quite small?</p>	<p>Thanks for your comments. The FRCR policy is not purely cost driven. The current system conditions and response services markets liquidity suggests we are comfortable of reducing the minimum inertia requirement down to 102 GVA.s. Running with 102 GVA.s will also give us the flexibility to run the system greener without the need to instruct conventional machines for inertia purpose. This reduction paves the way to enable us to operate the system at zero carbon for a short period of time by 2025 and to eventually achieve Clear Power 2030 target.</p>
<p>Is NESO certain that in light of the 14th March event that if the level had been 102GVAs (on 14/03) that the system effect would have been (i) the same as or (ii) worse than or (iii) better than what actually happened on 14/03</p>	<p>At 102 GVA.s inertia, when we replicate the trips with 5 seconds apart between Unit 2&3 and Unit 1, the frequency drop can be contained at 49.54 Hz. If three units tripped simultaneously and the initial frequency is the worst case of 49.85 Hz. the frequency nadir would reach to 49.10 Hz which again avoided LFDD. With inertia estimated as low as 102 GVA.s our response holding will be increased from the day ahead market in the real system. By that, the frequency nadir would be well improved. More details about the deep dive on 14th March event were shared in the OTF on 19th March 2025. Please refer to it for further information.</p>
<p>Slide 11 Simultaneous event Residual risks 1-in-9999 years - Does this cover loss only 2 BMU simultaneously? Last Friday shows and early events show simultaneous events can impact 3 or more BMU.</p>	<p>The simultaneous event in FRCR analysis represent the additional risks that system is facing beyond single generation or transmission failure. Given the complexity of all the possible combinations of simultaneous events, FRCR analysis adopted a statistical method, in which the level of loss (MW) is determined by 2 BMUs for peak, upper quantile (75%) and median (50%). The 14th March event lost three BMUs but the level of loss is correlated to upper quantile simultaneous events in FRCR analysis. The total loss of 14th March event will also be used in likelihood calibration in preparation for the next FRCR.</p> <p>There is nothing that rules out that simultaneous event would affect 2, 3, or more units at the same time. However, as the number increases, the probability drops and the costs required to cater for it increase significantly. Recognising that the FRCR does not require securing 2 simultaneous BMU events, it is unlikely to require securing more than 2.</p>
<p>Why is there no mention of 50.5Hz high frequency events in the presentation?</p>	<p>Details on 50.5 Hz event are presented in the report. FRCR examines both the low frequency side and high frequency side. However, the results are more focused on low frequency side, because 1) it's more challenging to contain a low frequency event and 2) the consequence of low frequency event can be significant if LFDD is being triggered. It is also worth noting as part of FRCR2025, we have modelled the effect of Generator performance as required under the Grid Code which requires all plant operating in Limited Frequency Sensitive Mode to automatically reduce their power output at system frequencies of 50.4Hz and above.</p>
<p>I am not convinced much of the £ benefits of Lower inertia are realised due to other system issues - does NESO have a view on this?</p>	<p>FRCR is quantifying the benefits from balancing between cost and frequency residual risks. Savings are achieved on the basis that system security is not compromised in terms of frequency risk. It is acknowledged that overall system benefits will be realised with inputs from other operability workstreams. NESO has various programmes and projects that take a broader look at inertia beyond the scope of FRCR. Examples of these can be found in the Operability Strategy Report (OSR), which NESO publishes annually. The OSR 2024 will be published by end of March 2025.</p>